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42, while the width of the main body 33 is a width enabling it to slide in the groove 41N at the first housing segment 41. The length of the shaft 10C is the same as the length of the main body 33. Further, the thickness of the main body 33 is a thickness enabling it to slide in the space which is formed by the grooves 41N and 42N when the first and second housing segments 41 and 42 are superposed, that is, a thickness of about two times the depth of the groove 41N. Note that, in actuality, there is a cover at the surface of the main body 33 which faces the grooves 41N and 42N, but illustration of this cover is omitted.

At the main body 33, there is an elliptical recessed part 36 and a space which is communicated with this recessed part 36 and which is cut out to one long side part of the main body 33 to thereby form a cutaway part 37. In the recessed part 36, there is a guide member 34. The two end parts of the guide member 34 are semicircular. Between the two end parts of the recessed part 36, a semicircular passage is formed. At the guide member 34 at the opposite side to the cutaway part 37, a slit 36S provided with step differences 36D at the two ends is formed. At the parts of the slits 36S adjoining the step differences 36D, there are engagement recessed parts 51 and 52 which house and engage with the later explained endpiece members.

The ring-shaped part 35 is a belt-shaped member. At its inner circumferential surface, a first slide member 31 is attached, while at its outer circumferential surface, a second slide member 32 is attached. The lengths of the first and second slide members 31 and 32 are the same. Further, the length of the ring-shaped part 35 from one end part of the first slide member 31 to one end part of the second slide member 32 and the length of the ring-shaped part 35 from the other end part of the first slide member 31 to the other end part of the second slide member 32 are the same. The ring-shaped part 35 is assembled into the recessed part 36 of the main body 33 in the state with the two end parts inserted into the above-mentioned semicircular passage. In this state, the first slide member 31 can move in the slit 36S of the guide member 34. Further, in the state where the ring-shaped part 35 is assembled inside the recessed part 36, the second slide member 32 can move in the cutaway part 37.

At the first slide member 31 at the first housing segment 41 side, the mounting plate 41P is attached by screws 15. The mounting plate 41P to which the first slide member 31 is attached is fastened by the screws 15 to the first housing segment 41 at the mounting recessed part 41T. The second slide member 32 is provided with a recessed part 32A, so in the state with the two brackets 42B positioned in the recessed part 32A, the shaft 10C is inserted from the shaft insertion hole 38 which is provided in the main body 33 and the shaft 10C is passed through the holes 42H which are provided in the brackets 42B. The shaft 10C which is passed through the holes 42H which are provided at the brackets 42B is passed through the cutaway part 37, then is inserted in the shaft insertion hole 38 which is provided at the opposite side of the main body 33. The brackets 42B through which the shaft 10C is passed can be positioned at the two end parts of the recessed part 32A and in that state fastened by screws 15 to the mounting recessed parts 42T which are provided at the second housing segment 42.

The ring-shaped part 35, in this embodiment, is a belt-shaped member, but it may also be a wire member which uses a wire etc. The ring-shaped part 35 can be integrally produced by cutting out the parts of the first and second slide members 31 and 32 from a plastic sheet. Further, the first and second slide members 31 and 32 and the ring-shaped part 35 may also

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be produced as separate members and then the ring-shaped part 35 may be connected to the first and second slide members 31 and 32.

In the state where the main body 33 of the slide assist mechanism 30 is attached to the inside of the groove 41N of the first housing segment 41 and the broad width groove 42W of the second housing segment 42, one end part of the first slide member 31 is positioned at the inside of the step difference 36D at the first housing segment 41 side of the slit 36S. In this state, the assist spring member 18 which is provided with the tension spring 19 and the endpiece members 20 are attached to the inside of the slit 36S. At this time, one of the endpiece members 20 is inserted into the engagement recessed part 51, the tension spring 19 is inserted into the slit 36S between the first slide member 31 and the guide member 34, and the other of the endpiece members 20 is made a state engaged with the end part of the first slide member 31. This state is the state which is illustrated in FIG. 11A.

The assist spring member 18, as illustrated in FIG. 13A and FIG. 13B, is provided with an elastic member constituted by a tension spring 19 and endpiece members 20 which are attached to the two end parts of this tension spring 19 in a swivelable manner. The endpiece members 20 have diameters larger than the width of the tension spring 19 in the short direction. Each endpiece member 20, as illustrated in, for example, FIG. 13A, is comprised of a disk-shaped main body 23 with part which is cut out in an arc shape to form a cutaway part 21 and with a post 22 which is provided sticking out near the outer circumferential part of the main body 23 of the cutaway part 21. At this post 22, a hook part 19H of the tension spring 19 is attached.

FIG. 13B illustrates the tension spring 19 which is illustrated in FIG. 13A and endpiece members 20 which are attached to the two end parts of the same. The hook parts 19H of the tension spring 19 are just hooked at the posts 22 of the endpiece members 20 so as to not detach, so the endpiece members 20 can swivel with respect to the tension spring 19. In this way, the endpiece members 20 have catch parts (posts 22) which can engage with the hook parts 19H of the spring 19. Further, the endpiece members 20, as explained later, may be disk shapes etc. so as to roll well when the parts which engage with the endpiece members 20 are changed.

As illustrated in FIG. 11A, in the state where a slide assist mechanism 30 is attached to the first and second housing segments 41 and 42, the second housing segment 42 can be made to rotate with respect to the first housing segment 41 by the shaft 10C and brackets 42B by 180 degrees. FIG. 11B illustrates the state where the second housing segment 42 is made to rotate with respect to the first housing segment 41 by the shaft 10C and the brackets 42B by 180 degrees. The state which is illustrated in FIG. 11B corresponds to the state of FIG. 3C in the above-mentioned embodiment. If the second housing segment 42 rotates with respect to the first housing segment 41 by 180 degrees, the groove 41N of the first housing segment 41 and the groove 42N of the second housing segment 42 are connected in a straight line.

Therefore, in this state, if external force is applied to the two end parts of the first housing segment 41 and second housing segment 42, the slide assist mechanism 30 slides in the groove 41N of the first housing segment 41 and the groove 42N of the second housing segment 42, so it is possible to make the first housing segment 41 and the second housing segment 42 approach. In the state which is illustrated in FIG. 11B, if external force starts to be applied to the two end parts of the first housing segment 41 and second housing segment 42, one endpiece member 20 of the assist spring member 18 is engaged with the engagement recessed part 51, while the